EIIS Incident Report
Part A: General Information

Incident ID
I027337-001

County: Alameda
State: CA
Country: USA

Incident Date: 7/13/2014 **through**
Total Number: 1
Total Magnitude:

Year:
Case #: P-2842
Weather:

Incident Type

- Aqua. Animal
- ✔ Terr. Animal
- Aqua. Plant
- Terr. Plant

Field Study

Created: ########
Updated: 4/9/2015

Abstract:

On September 13, 2014, a resident of a rural area of Livermore observed a great homed owl in his backyard unable to fly. The owl had flown into the fence. The owl was submitted to Lindsay Wildlife Hospital for treatment. The bird expired within minutes of admission. Two anticoagulant rodenticides were detected in the liver, brodifacoum at 0.028 ppm and diphacinone at 0.31 ppm.

Brodifacoum is persistent in liver tissue of birds with a liver retention time of 217 days (Erickson and Urban 2004) so it is unknown how recent the exposure(s) of brodifacuom were. Diphacinone is a first-generation anticoagulant with commensal and field uses. Diphacinone has a much shorter retention time in tissue (half-life of 11.7 days in screech owls; Rattner et al. 2013). In screech owls, liver concentrations of 0.3 ppm were associated with impaired clotting (Rattner et al. 2013). Anticoagulant intoxication is characterized by unassociated with another identifiable cause. While a puncture wound was present, the extent of bleeding appears to be excessive, which could be caused by impaired clotting. It is likely that the owl's death was caused by anticoagulant intoxication. It is more difficult to determine if this intoxication was caused by exposure to brodifacoum, diphacinone, or both materials. However, the shorter half-life of diphacinone suggests that the exposure was recent, as opposed to the more uncertain timeframe for the brodifacoum exposure.

Reports

Package #	Incident #	Source	Report Date
027337	001	CDFW Wildlif Investigation Laboratory	1/12/2015

EIIS Incident Report
Part B: Pesticide Information

I027337-001

County: Alameda **State:** CA **Date:** 7/13/2014

Pesticide: **Brodifacoum (112701)** **Type:** R

Use Site:

Product: **Appl. Method:** **Appl. Rate:**

Formulation: **Air/Ground:** **Legality:** Undetermined

Certainty: Possible

It is likely that the owl's death was caused by anticoagulant intoxication. It is more difficult to determine if this intoxication was caused by exposure to brodifacoum, diphacinone, or both materials. However, the shorter half-life of diphacinone suggests that the exposure was recent, as opposed to the more uncertain timeframe for the brodifacoum exposure.

Pesticide: **Diphacinone (067701)** **Type:** R

Use Site:

Product: **Appl. Method:** **Appl. Rate:**

Formulation: **Air/Ground:** **Legality:** Undetermined

Certainty: Probable

It is likely that the owl's death was caused by anticoagulant intoxication. It is more difficult to determine if this intoxication was caused by exposure to brodifacoum, diphacinone, or both materials. However, the shorter half-life of diphacinone suggests that the exposure was recent, as opposed to the more uncertain timeframe for the brodifacoum exposure.

EIIS Incident Report
Part C: Species Information

I027337-001

County: Alameda **State:** CA **Date:** ########

1

Species: **Great horned owl**
Sci. Name: Bubo virginianus
Taxon: Bird
Age:

Response: Mortality
Magnitude: 1
Habitat: Residential area
Distance: Vicinity
Rt. of Exposure:

Necropsy

Number:
Condition:

Cholinesterase

Number:
Activity: um/g/min
Percent of Normal

Tissue Residues

Sample Type	PC Code	Pesticide	N	Conc. (ppm)
Liver	112701	Brodifacoum	1	0.028
Liver	067701	Diphacinone	1	0.31

EIIS Incident Report

Part D: Environmental Measurements

County:	State:	Date:

Common Name	PC Code	Degredate

		Min.	Max.	N	LOD
Concentrations in ppb	Water				
	Soil				
	Sediment				
	Foliage				

	Description	Concentration	N	LOD
Other Samples				

Dissolved Oxygen (ppm)	to	pH	to